

Appl. No. 10/583,998

Amendment dated November 24, 2009

Reply to Office Action of March 5, 2009 and Office Communication of October 19, 2009

AMENDMENTS TO THE DRAWINGS:

The attached sheets of drawings include changes to Figures 1, 2, 5, 6, 7, 8, 9, 11, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, and 24. These sheets, which include Figures 1, 2, 5, 6, 7, 8a, 8b, 9, 11a, 11b, 14a, 14b, 15a, 15b, 16a, 16b, 17a, 17b, 18a, 18b, 19a, 19b, 20a, 20b, 21a, 21b, 22a, 22b, 23a, 23b, and 24a – 24d, replace the original sheets including Figure 1, 2, 5, 6, 7, 8, 9, 11, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, and 24.

Attachment: nineteen (19) replacement sheets

REMARKS

In the March 5, 2009 Office Action, the drawings and specification were objected to and claims 1-20 stand rejected in view of prior art, while claims 21-35 were withdrawn from consideration. Claims 35 was objected to and claims 9, 10, 12, 13, 15, 20, 34, and 35 also were rejected for failing to indicate and claim particularly and distinctly the subject matter that Applicants regard as the invention. No other objections or rejections were made in the Office Action. In the October 19, 2009 Office Communication, the Amendment filed June 12, 2009 was found to be non-responsive.

Status of Claims and Amendments

In response to the March 5, 2009 Office Action, Applicants have submitted herewith a substitute specification and corrected drawings and have amended claims 1, 2, 9, 10-15, 17-20, 34, and 35 as indicated above. In response to the October 19, 2009 Office Communication, Applicants respectfully traverse a finding, have included comments to support the traversal, and have amended claim 20. Further, Applicants have added new claim 36. Applicants wish to thank Examiner Lorence for the examination of this application, and for his assistance in advancing prosecution of this application. Thus, claims 1-36 are pending, with claims 1 and 20 being the only independent claims. Reexamination and reconsideration of the pending claims are respectfully requested in view of above amendments and the following comments.

October 19, 2009 Office Communication

In the October 19, 2009 Office Communication, it was held that claim 1 as amended was not readable on the elected species of Figures 1-5 because it required that the input rotor and pressure plate be made of a material containing iron as the main ingredient. Applicants respectfully traverse this conclusion. Specifically, on page 45, under the sub-heading, “3.

Friction Material” of the originally filed translation, and on page 45, lines 8-10 of the substitute specification filed herewith, the written disclosure states that the flywheel 3, pressure plate 7, and second friction plate 42 of the first embodiment, i.e., the elected species of Figures 1-5, may be made of a steel material or the like.

Applicants respectfully assert that a dictionary definition of steel is a “commercial iron that contains carbon in any amount up to 1.7 percent as an essential alloying constituent, is malleable when under suitable conditions, and is distinguished from cast iron by its malleability and lower carbon content.”¹ Thus, Applicants respectfully assert that by definition, a steel material is a material that contains iron as the main ingredient, and that the amendments to claim 1 are responsive.

With regards to claim 20, Applicants have amended claim 20 to delete the term “directly.” While Applicants agree that claim 20 can be directed to the embodiment shown in Figures 9-13, Applicants respectfully assert that amended claim 20 can also be directed to the first and elected embodiment shown in Figures 1-5 as follows.

20. (Currently Amended) A clutch disk assembly for transmitting and intercepting a power from a flywheel (40) on an engine side to an input shaft (4) of a transmission, comprising:

a friction plate (41) being made of carbon and configured to be pressed against the flywheel (40);

a disk-like input portion (35 and/or 36) having an outer peripheral portion (44) coupled to an inner peripheral portion of the friction plate (41);

an output portion (21) coupled to the input shaft (4) of the transmission; and

a plurality of fixing units (44b) coupling the outer peripheral portion (44) of the

¹ Frederick C. Mish et al., eds. *Merriam-Webster's Collegiate © Dictionary*, (10th ed.; Springfield, Mass.: Merriam-Webster, 1997), 1151.

disk-like input portion (35 and/or 36) to the inner peripheral portion of the friction plate (41), the fixing units (44b) supporting the friction plate (41), the friction plate (41) being movable in an axial direction relative to the disk-like input portion (35 and/or 36) and movable relative to the fixing units (44b).

Applicants respectfully assert that the above illustrations are provided as examples and are not intended to limit the claims.

Election of Species

On page 2 of the Office Action, Applicants' election without traverse was acknowledged. It was noted that the Examiner believed that claims 24, 26, 27, 34, and presumably 35 also did not read on the elected species. In light of the explanation provided in the Office Action, Applicants agree that these claims do not read on the elected species. Applicants wish to thank the Examiner for his clear and concise explanation. Thus, non-elected claims 21-35 have withdrawn from further consideration. However, Applicants respectfully request that non-elected claims 21-35 be rejoined in this application upon allowance of a generic or linking claim, or claims.

Drawings

On pages 3 and 4 of the Office Action, the drawings were objected to as failing to comply with 37 CFR §§1.83(a) and 1.84(p)(5). In response, Applicants have submitted herewith corrected drawings to show the window hole portions and to correct errors discovered upon review, and have amended claims 12 and 13 to delete the term "release device." Applicants believe that the drawings now comply with 37 CFR §§1.83(a) and 1.84(p)(5).

Further, to correct errors discovered upon review, Applicants have amended Figure 6 to change "31a" to -- 35a -- and -- 36a --, "31" to -- 35 -- and -- 36 --, "31b" to -- 35b-- and --

36b --, and “44” to -- 144 --, Figure 7 to change “44a” to -- 144a --, “31” to -- 35 --, and “31a” to -- 35a --, Figure 8 to Figures 8a and 8b, Figure 9 to change “204” to -- 4 -- and to delete 71a and 206, Figure 11 to Figures 11a and 11b, Figure 11b to change “42a” to -- 267a --, “43” to -- 266 --, “42b” to -- 267b --, “42” to -- 267 --, and “41” to -- 265 --, Figure 14 to Figures 14a and 14b, Figure 15 to Figures 15a and 15b, Figure 16 to Figures 16a and 16b, Figure 17 to Figures 17a and 17b, Figure 18 to Figures 18a and 18b, Figure 18b to change “465e” to -- 465e --, Figure 19 to Figures 19a and 19b, Figure 20 to Figures 20a and 20b, Figure 21 to Figures 21a and 21b, Figure 22 to Figures 22a and 22b, Figure 23 to Figures 23a and 23b, and Figure 24 to Figures 24a to 24d.

Applicants respectfully request withdrawal of the objections.

Specification

On page 4 of the Office Action, the specification was objected to for informalities. In response, Applicants have submitted herewith a substitute specification to correct the errors mentioned in the Office Action and others discovered upon review, and have submitted herewith corrected drawings. In accordance with 37 CFR §1.125(b), Applicants state that the substitute specification includes no new matter.

Specifically, Applicants have amended Figures 1 and 2 to change “31,” 31a,” and “31b” to -- 35 -- and -- 36 --, -- 35a -- and -- 36a --, and -- 35b -- and -- 36b --, the written disclosure (page 31, line 23 of the substitute specification) to mention “55a” and “55b,” and have deleted “7c,” “12c,” “90,” “91,” and “92” in Figure 5.

Further, Applicants have submitted a substitute specification to correct the informalities mentioned in the Office Action. Please note that Applicants believe that in line 15 on page 31 of the previous written disclosure, it should read -- stop pin 45 --, and line 22

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on page 32 should read -- notched portions --. Applicant has amended Figure 1 to change “7a” to -- 7c -- to identify the notch portion.

Applicants believe that the specification is now correct and complies with 37 CFR §1.71 and 37 CFR §1.75(d)(1). Withdrawal of the objections is respectfully requested.

Claim Objections

On page 4 of the Office Action, claim 35 was objected to. In response, Applicants have amended claim 35 as suggested to recite -- disk-like input plate --.

Withdrawal of the objection is respectfully requested.

Claim Rejections - 35 U.S.C. §112

On page 5 of the Office Action, claims 9, 10, 12, 13, 15, 20, 34, and 35 were rejected under 35 U.S.C. §112, second paragraph. In response, Applicants have amended claims 9, 10, 12, 13, 15, and 20 to clarify them.

Specifically, Applicants have amended claims 9 and 10 to clarify that the stepped portion and tapered portion are being compared to one of the head portions. Further, antecedent basis has been given to the biasing members in claims 12, 13, and 15. Moreover, the term clutch disk-body has been deleted from claim 20.

Applicants believe that the claims now comply with 35 U.S.C. §112, second paragraph. Withdrawal of the rejections is respectfully requested.

Rejections - 35 U.S.C. § 102

On pages 5 and 6 of the Office Action, claim 20 stands rejected under 35 U.S.C. §102(b) as being anticipated by UK Patent Application Publication No. 2,300,679 (Nash et al.). In response, Applicants have amended independent claim 20 to define the present invention over the prior art of record.

In particular, independent claim 20 has been amended to recite that the fixing units support the friction plate that is movable in an axial direction relative to the disk-like input portion and movable relative to the fixing units. As seen in Figure 4 of Nash et al., Applicants respectfully assert that the fixing units of Nash et al., identified in the Office Action as 36 and 37 are fixed and cannot move relative to the friction plate 21.

Applicants respectfully assert that this structure is not disclosed or suggested by Nash et al. or any other prior art of record. It is well settled under U.S. patent law that for a reference to anticipate a claim, the reference must disclose each element of the claim within the reference. Therefore, Applicants respectfully submit that claim 20, as now amended, is not anticipated by the prior art of record. Withdrawal of this rejection is respectfully requested.

Rejections - 35 U.S.C. § 103

On pages 6-9 of the Office Action, claims 1-8 and 12 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Japanese Laid-Open Publication No. 2002-195290 (Okazaki) in view of UK Patent Application Publication No. 2,300,679 (Nash et al.). On page 10 of the Office Action, claims 9 and 10 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Okazaki in view of Nash et al. and U.S. Patent No. 6,581,259 (Yoshikawa et al.). On pages 10 and 11 of the Office Action, claim 11 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Okazaki in view of Nash et al. and U.S. Patent Application Publication No. 2002/0079188 (Link et al.). On pages 11 and 12 of the Office Action, claim 13 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Okazaki in view of Nash et al. and U.S. Patent No. 4,790,419 (Loizeau). On page 12 of the Office Action, claims 14 and 15 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Okazaki in view of Nash et al. and U.S. Patent No. 5,904,234 (Kosumi et al.). On pages 12

and 13 of the Office Action, claims 16-18 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Okazaki in view of Nash et al. and U.S. Patent No. 4,548,309 (Braun). On page 13 of the Office Action, claim 19 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Okazaki in view of Nash et al. and U.S. Patent No. 6,026,944 (Satou et al.). In response, Applicants have amended independent claim 1 as mentioned above.

More specifically, independent claim 1 now recites that the input rotor and the pressure plate are made of a material containing iron as the main ingredient. Applicants respectfully assert that the prior fails to disclose or to suggest using iron as the main ingredient for the input rotor and the pressure plate. Applicants respectfully assert that the combination of an input rotor and pressure plate having iron as the main ingredient coupled with the plurality of first friction plates being configured by a carbon composite material in conjunction with the recited structure leads to unexpected results.

For example, when the temperature of friction plates is low, the friction coefficient is also low and the impact at the moment the clutch couples is not great. However, when the temperature is high, the friction coefficient is also high. This leads to torque being rapidly transmitted at the moment the clutch couples, which may hamper a driver's ability to control a vehicle. Applicants respectfully assert that the recited damper mechanism reduces the impact in the aforementioned situation. Thus, claim 1 of the present application provides a clutch device that can respond well dramatically enhancing operability in various situations due to its unique structure and composition.

Applicants respectfully assert the recited arrangement is not disclosed or suggested by the prior art of record. It is well settled in U.S. patent law that the mere fact that the prior art can be modified does not make the modification obvious, unless the prior art provides an apparent reason for the desirability of the modification. Accordingly, the prior art of record

lacks any apparent reason, suggestion or expectation of success for combining the patents to create the Applicants' unique arrangement.

Moreover, Applicants believe that the dependent claims are also allowable over the prior art of record in that they depend from independent claim 1, and therefore are allowable for the reasons stated above. Also, the dependent claims are further allowable because they include additional limitations. Thus, Applicants believe that since the prior art of record does not disclose or suggest the invention as set forth in independent claim 1, the prior art of record also fails to disclose or suggest the inventions as set forth in the dependent claims.

Therefore, Applicants respectfully request that this rejection be withdrawn in view of the above comments and amendments.

New Claim 36

Applicants have added new claim 36, which depends on claim 1. Applicants believe that claim 36 is allowable over the prior art of record in that it depends from independent claim 1, and therefore is allowable for the reasons stated above. Also, dependent claim 1 is further allowable because it includes additional limitations.

Examination and consideration are respectfully requested.

Prior Art Citation

In the Office Action, additional prior art references were made of record. Applicants believe that these references do not render the claimed invention obvious.

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In view of the foregoing amendment and comments, Applicants respectfully assert that claims 1-36 are now in condition for allowance. Reexamination and reconsideration of the pending claims are respectfully requested.

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Respectfully submitted,

/Todd M. Guise/

Todd M. Guise

Reg. No. 46,748

GLOBAL IP COUNSELORS, LLP
1233 Twentieth Street, NW, Suite 700
Washington, DC 20036
(202)-293-0444

Dated: November 24, 2009

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